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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/607,481	06/30/2000	Paul Warren Poole	24850A	2284
22889	7590	09/23/2004	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023			MIGGINS, MICHAEL C	
			ART UNIT	PAPER NUMBER
			1772	
DATE MAILED: 09/23/2004				

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/607,481

Applicant(s)

POOLE ET AL.

Examiner

Michael C. Miggins

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Arguments***

1. In view of the appeal brief filed on 6/30/2004, PROSECUTION IS HEREBY REOPENED. New grounds for rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,
- (2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

### **Rejections Withdrawn**

2. All previous grounds for rejection have been withdrawn.

### **Rejections Repeated**

3. There are no rejections repeated.

## **New Rejections**

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-2, 6, 9-10, and 12, 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpinski (U.S. Patent No. 4,304,824) in view of Lynn et al. (U.S. Patent No. 6,093,481).

Karpinski teach an acoustical and thermal insulator (column 1, lines 1-16), comprising a multiplayer composite including a first facing layer (15 from Fig. 1 and column 2, lines 20-47), a polymer based blanket layer (14 from Fig. 1 and column 2, lines 20-47) and an insulation insert (16 from Fig. 1 and column 2, lines 20-47) encapsulated by said first facing material layer and said polymer based blanket layer (column 2, lines 20-47 and column 5, lines 4-23), said insulation insert being constructed from a material selected from a group consisting of fiberglass, foam, polymer based blanket material, natural fiber based blanket material and combinations thereof (column 2, lines 20-47), wherein said insulation insert is positioned only at selected locations in said insulator to provide shielding of heat sources and/or sound sources and wherein the insulation insert is a first insulation insert and further including a second insulation insert encapsulated by said first facing material layer and said fibrous

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polymer based blanked layer adjacent to the first insulation insert (16 from Fig. 3 and column 2, line 64 through column 3, line 23) (applies to instant claims 1, 9 and 18).

Karpinski discloses applicant's invention substantially as claimed.

However, Karpinski fails to disclose an acoustical and thermal insulator comprising a multiplayer composite including a fibrous first facing material, a fibrous polymer based blanket layer, wherein said first facing layer is constructed from a heat reflective metallic foil having a thickness of between substantially 0.5-5.0 mil, wherein said polymer based blanket layer is selected from a group of materials consisting of polyester, polyolefin, polyethylene, cotton shoddy, nylon, rayon, acrylic, natural fibers including kenaf and hemp, and combinations thereof with and without melt blown microfibers, further including a second facing layer, wherein said second facing layer is selected from a group of materials consisting of polyester, polypropylene, rayon, nylon, glass, metal foil and mixtures thereof, wherein said first facing layer and second facing layer includes a heat activated adhesive to secure said first facing layer to said polymer based blanket layer, wherein said heat activated adhesive is selected from a group of materials consisting of thermoplastic sheet, thermoplastic web, hot melt, latex and heat activated.

Lynn et al. teach an acoustical and thermal insulator (column 1, lines 5-12, column 3, lines 50-55), comprising a multiplayer composite including a first facing material, a polymer based blanket layer (column 2, lines 30-40, column 4, lines 35-50) bonded to a foam core (column 3, lines 25-40), wherein said first facing

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layer is constructed from a heat reflective metallic foil having a thickness of between substantially 0.5-5.0 mil (column 2, lines 30-40, column 3, lines 39-40), wherein said polymer based blanket layer is selected from a group of materials consisting of polyester, polyolefin, polyethylene, cotton shoddy, nylon, rayon, acrylic, natural fibers including kenaf and hemp, and combinations thereof with and without melt blown microfibers (column 2, lines 30-40), further including a second facing layer (column 4, lines 35-50), wherein said second facing layer is selected from a group of materials consisting of polyester, polypropylene, rayon, nylon, glass, metal foil and mixtures thereof (column 2, lines 30-40), wherein said first facing layer and second facing layer includes a heat activated adhesive to secure said first facing layer to said polymer based blanket layer, wherein said heat activated adhesive is selected from a group of materials consisting of thermoplastic sheet, thermoplastic web, hot melt, latex and heat activated resins (column 4, lines 9-22) (applies to instant claims 1-2, 6, 10, 12, 14-17) for the purpose of providing toughness, light weight and high insulation (column 1, lines 55-57).

The references are analogous because both are drawn to insulation for use in building constructions (Karpinski, column 1, lines 5-10 and column 2, lines 48-63; Lynn et al., column 1, lines 5-11)

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided an acoustical and thermal insulator comprising a multiplayer composite including a fibrous first facing material, a fibrous polymer based blanket layer, wherein said first facing

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layer is constructed from a heat reflective metallic foil having a thickness of between substantially 0.5-5.0 mil, wherein said polymer based blanket layer is selected from a group of materials consisting of polyester, polyolefin, polyethylene, cotton shoddy, nylon, rayon, acrylic, natural fibers including kenaf and hemp, and combinations thereof with and without melt blown microfibers, further including a second facing layer, wherein said second facing layer is selected from a group of materials consisting of polyester, polypropylene, rayon, nylon, glass, metal foil and mixtures thereof, wherein said first facing layer and second facing layer includes a heat activated adhesive to secure said first facing layer to said polymer based blanket layer, wherein said heat activated adhesive is selected from a group of materials consisting of thermoplastic sheet, thermoplastic web, hot melt, latex and heat activated in the insulator of Karpinski in order to provide toughness, light weight and high insulation as taught or suggested by Lynn et al..

6. Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpinski (U.S. Patent No. 4,304,824) in view of Lynn et al. (U.S. Patent No. 6,093,481), as applies to claims 1-2, 6, 9-10, and 12, 14-18 above, and further in view of Gluck et al. (U.S. Patent No. 4,438,166).

Karpinski discloses applicant's invention substantially as claimed.

However, Karpinski fails to disclose said metallic foil includes a reinforcement, wherein said metallic foil reinforcement is selected from a group consisting of a

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fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern.

Gluck et al. teach said metallic foil includes a reinforcement (column 3, lines 29-41), wherein said metallic foil reinforcement is selected from a group consisting of a fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern (column 4, lines 24-49) (applies to instant claims 3-5) in a thermal insulating application of a multi-layer laminate (see abstract) for the purpose of providing improved toughness and impact resistance (column 12, lines 25-35).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a metallic foil includes a reinforcement, wherein said metallic foil reinforcement is selected from a group consisting of a fibrous scrim, a fibrous mat and a fibrous web, wherein said reinforcement is made from glass fiber threads arranged in a criss-cross pattern and wherein said second facing layer includes a scrim in the insulating panel of Karpinski in order to provide improved toughness and impact resistance as taught by Gluck et al..

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karpinski (U.S. Patent No. 4,304,824) in view of Lynn et al. (U.S. Patent No. 6,093,481), as applies to claims 1-2, 6, 9-10, and 12, 14-18 above, and further in view of Nomizo et al. (U.S. Patent No. 5,366,678).



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Karpinski discloses applicant's invention substantially as claimed.

However, Karpinski fails to disclose the polymer based blanket layer includes a relatively high density section and relatively low density section.

Nomizo et al. teach a compression molding process of a thermofusible fibrous (thermoplastic fibers) blank including, inserting said blank in a mold and applying pressure and heat to a specific region such that said thermoplastic fiber in said specific region melts, hence the density and hardness in said specific region (column 1, lines 45-56 and column 2, lines 9-25). It is submitted that an increased hardness results in an increased rigidity. Nozimo et al. specifically teach that such localized heating allows for an increased density and hardness (rigidity) in said areas which results in a more versatile and improved product (column 1, lines 45-56 and column 2, lines 9-25).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided the polymer based blanket layer includes a relatively high density section and relatively low density section in the insulating panel of Karpinski in order to provide more versatile and improved product as suggested by Nomizo et al..

8. Claims 11 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Karpinski (U.S. Patent No. 4,304,824) in view of Lynn et al. (U.S. Patent No. 6,093,481), as applies to claims 1-2, 6, 9-10, and 12, 14-18 above, and further in view of Altenberg (U.S. Patent No. 6,096,416).

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Lynn et al. teach a first facing layer and/or second facing layer is treated with a fire retardant, a biocide and/or a colorant (column 3, lines 49-63) (applies to instant claim 13).

Karpinski discloses applicant's invention substantially as claimed.

However, Karpinski fails to disclose a second facing layer including scrim.

Altenberg teach a facing layer including scrim (column 9, lines 38-60) in an insulating panel for the purpose of providing improved mechanical properties and flame resistance (column 2, lines 25-60) (applies to instant claim 11).

Therefore it would have been obvious to one having ordinary skill in the art at the time applicant's invention was made to have provided a second facing layer including scrim in the insulating panel of Karpinski for the purpose of providing improved mechanical properties and flame resistance as taught or suggested by Altenberg.

9. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Karpinski (U.S. Patent No. 4,304,824) in view of Lynn et al. (U.S. Patent No. 6,093,481), as applies to claims 1-2, 6, 9-10, and 12, 14-18 above, and further in view of Facciano et al. (U.S. Patent No. 6,343,954 B1).

Karpinski discloses applicant's invention substantially as claimed.

However, Karpinski fails to disclose wherein the insulation insert includes at least one recessed portion adapted for matching with an adjacent structure for which enhanced protection from heat or sound transmission is desired.

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Facciano et al. disclose an encapsulated insulation insert including at least one recessed portion adapted for matching with an adjacent structure for which enhanced protection from heat or sound transmission is desired (84 from Fig. 4, column 5, lines 8-30) for the purpose of providing improved insulation for additional elements such as cables (which would be desirable in building constructions) (see column 5, lines 8-30).

The references are analogous since both are drawn to encapsulated insulation inserts.

Therefore it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to have provided wherein the insulation insert includes at least one recessed portion adapted for matching with an adjacent structure for which enhanced protection from heat or sound transmission is desired in the insulator of Karpinski in order to provide improved insulation for additional elements such as cables as taught or suggested by Facciano et al..

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Miggins whose telephone number is (571) 272-1494. The examiner can normally be reached on Monday-Friday; 1:30-10:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pyon Harold can be reached on (571) 272-1498. The fax

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phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MCM *al*  
September 17, 2004

*[Signature]*  
HAROLD PYON  
SUPERVISORY PATENT EXAMINER  
*1772*

*9/17/04*